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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/761,625

01/22/2004

Meng-An Pan

58268.00350

3541

32294

7590

08/25/2006

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EXAMINER

NGUYEN, TUAN HOANG

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/761,625	PAN ET AL.	
	Examiner	Art Unit	
	Tuan H. Nguyen	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06/02/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 06/02/2006 have been fully considered but they are not persuasive.

In response to Applicant's remark on pages 4-5, and 7, Applicant argues that Eidson et al. (U.S PAT. 6,255,906 hereinafter "Eidson") and Fukasawa et al. (U.S PAT. 5,715,521 hereinafter "Fukasawa") references cited by the Examiner fails to disclose or suggest all of the elements of the claims. Specifically, Applicants argue that Eidson and Fukasawa fail to disclose or suggest "powering on or off at least one branch of the power amplifier according to the received instruction to enable a logarithmic change in output power of the amplifier," as recited in claim 1 and similarly recited in claim 8. Similarly, Eidson and Fukasawa do not disclose or suggest "a determining engine, communicatively coupled to the receiving engine, capable of determining how many branches of a power amplifier to power on or off according to the received instruction to enable a logarithmic change in output power," as recited in claim 9. Examiner respectfully disagrees with the Applicant argument.

Consider claims 1, 8, and 9, Applicant should refer to Eidson reference (see fig. 1 col. 2 lines 35-47 and col. 5 lines 55-67) where as the Examiner interpreted "powering on or off at least one branch of the power amplifier (each branch of the power amplifier connected in parallel) according to the received instruction (a control circuitry) to enable a logarithmic change in output power of the amplifier".

Furthermore, the Applicant argues that Eidson and Fukasawa references cited by the Examiner fails to disclose or suggest "a plurality of transistors, each transistor being communicatively coupled to a branch of the plurality of branches" for controlling transistors, as recited in claim 15. Examiner respectfully disagrees with the Applicant argument.

Consider claim 15, Applicant should refer to Eidson reference (see fig. 6 col. 14 lines 50-55) where as the Examiner interpreted "a plurality of transistors (within power amplifiers array), each transistor being communicatively coupled to a branch of the plurality of branches (power amplifiers)".

Therefore, the teaching of the prior art references still read on.

Base on the above rational, it is believed that the claimed limitations are met by the references submitted and therefore, the rejection are maintained.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eidson et al. (U.S PAT. 6,255,906 hereinafter "Eidson") in view of Fukasawa et al. (U.S PAT. 5,715,521 hereinafter "Fukasawa").

Regarding claims 1 and 8, Eidson discloses powering on or off at least one branch of the power amplifier according to the received instruction to enable a logarithmic change in output power of the amplifier (Fig. 1 col. 5 lines 55-67); and amplifying a signal according to the adjusted output power (col. 2 lines 9-12). Eidson differs from the claimed invention in not specifically teaching receiving an instruction to adjust the output power of power amplifier. However, Fukasawa teaches receiving an instruction to adjust the output power of power amplifier (col. 6 lines 46-57). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Eidson for receiving an instruction to adjust the output power of power amplifier, such that the sync signals can be transmitted at optimal power level in order to keep total interference within acceptable bounds, as taught by Fukasawa (col. 6 line 46 through col. 7 line 2).

Regarding claim 2, Eidson further discloses transmitting the amplified signal (col. 15 lines 11-14).

Regarding claims 3 and 10, Fukasawa further discloses the instruction specifies a percentage change in power (col. 6 lines 46-57, the controller instructs the variable

gain amplifier to adjust its output power to the designated level is determined from the number of stations currently communicating, therefore, the power level is proportional changed (percentage change) when ever the number of stations change).

Regarding claims 4 and 11, Eidson further discloses the instruction specifies a dB change in power (col. 11 lines 13-16).

Regarding claims 5 and 12, Eidson further discloses the powering on or off a branch of the power amplifier linearly in dB changes the output power of the amplifier (col. 5 lines 17-26).

Regarding claims 6 and 13, Eidson further discloses thermometer coded power control words are used to power on and off branches of the amplifier (col. 5 lines 27-34).

Regarding claims 7 and 14, Eidson further discloses the thermometer coded power control words ensure monotonic power control (col. 5 lines 31-34).

Regarding claim 9, Eidson discloses and a determining engine, communicatively coupled to the receiving engine, capable of determining how many branches of a power amplifier to power on or off according to the received instruction to enable a logarithmic change in output power (Fig. 1 col. 5 lines 55-67). Eidson differs from the claimed invention in not specifically teaching a receiving engine capable of receiving an

instruction to adjust the output power of power amplifier; and a power amplifier engine, communicatively coupled to the determining engine and the power amplifier, capable of transmitting the determination to the power amplifier. However, Fukasawa teaches a receiving engine capable of receiving an instruction to adjust the output power of power amplifier (col. 6 lines 46-57); and a power amplifier engine, communicatively coupled to the determining engine and the power amplifier, capable of transmitting the determination to the power amplifier (col. 6 lines 46-57). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Eidson for a receiving engine capable of receiving an instruction to adjust the output power of power amplifier; and a power amplifier engine, communicatively coupled to the determining engine and the power amplifier, capable of transmitting the determination to the power amplifier, such that the sync signals can be transmitted at optimal power level in order to keep total interference within acceptable bounds, as taught by Fukasawa (col. 6 line 46 through col. 7 line 2).

4. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eidson et al. (U.S PAT. 6,255,906 hereinafter "Eidson") in view of Miyamoto (U.S PAT. 7,023,275).

Regarding claim 15, Eidson discloses a power amplifier, comprising: a plurality of branches for controlling transistors (Fig. 6 col. 14 lines 50-55); and a plurality of transistors, each transistor being communicatively coupled to a branch of the plurality of

branches (Fig. 6 col. 14 lines 50-55). Eidson differs from the claimed invention in not specifically teaching the transistors are arranged in a logarithmic scale, thereby enabling a logarithmic change in output power with the powering on or off of a transistor. However, Miyamoto teaches the transistors are arranged in a logarithmic scale, thereby enabling a logarithmic change in output power with the powering on or off of a transistor (col. 7 line 54 through col. 8 line 19). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Eidson for the transistors are arranged in a logarithmic scale, thereby enabling a logarithmic change in output power with the powering on or off of a transistor, as per teaching of Miyamoto, such that it provides a variable gain amplifier includes: an amplifying transistor which amplifies an input signal and a current path control section which controls a size of the amplifying transistor and a path of a current through the amplifying transistor.

Regarding claim 16, Eidson further discloses the powering on or off a branch of the power amplifier linearly in dB changes the output power of the amplifier (col. 5 lines 17-26).

Regarding claim 17, Eidson further discloses a transmitter comprising a power amplifier (col. 15 lines 11-14).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any response to this action should be mailed to:

Mail Stop _____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

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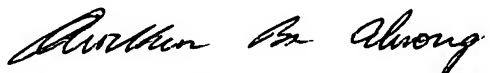
401 Dulany Street
Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571) 272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Nguyen
Examiner
Art Unit 2618

 8/18/06
QUOCHIEN B. VUONG
PRIMARY EXAMINER